


If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 371.5237.

Respectfully submitted,

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MARKED-UP VERSION SHOWING CHANGES MADE

In the specification:

Paragraph beginning at page 42, line 21 has been amended as follows:

FIG. 18 is a view illustrating a configuration of a multi-wavelength imaging device according to a fourth embodiment of the present invention. Reference numerals 11 to 13 denote the same members as those in the third embodiment. In the fourth embodiment, the device further includes a wavelength selecting filter 15, an infrared imaging element 16, and a visible imaging element 17. The wavelength selecting filter 15 transmits only infrared rays (wavelength: 3 μ m to 5 μ m, or 8 μ m to 12 μ m) and reflects visible rays (~~wavelength: 400 μ m to 750 μ m~~) (wavelength: 400nm to 750nm). The infrared imaging element 16 has sensitivity with respect to infrared rays, while the visible imaging element 17 has sensitivity with respect to visible rays.

Paragraph beginning at page 49, line 28 has been amended as follows:

FIG. 29 illustrates an example in which an imaging device 40 according to the present invention is mounted on a vehicle 41, so as to be used as a vehicle-mounted monitor including a vehicle-mounted visual supporting device. A situation ahead of a vehicle ~~92~~ 41 is imaged by an imaging device ~~70~~ 40. By processing the image, it is possible to detect whether or not the vehicle is deviating from a traffic lane. Besides, by displaying the image on a display device (not shown) provided at a driving seat, it is possible to support human vision.

In the claims:

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Claims 16-17, 32, 37, 40, 42, 83, 85-88, and 90 have been amended as follows:

16. (amended) The reflective optical device according to ~~any one of claims 11, 12, and 15~~, claim 11, wherein the at least three reflection surfaces are non-axisymmetric surfaces.

17. (amended) The reflective optical device according to ~~any one of claims 11, 12, and 15~~, claim 11, wherein the reflection surfaces are four surfaces that are a first surface, a second surface, a third surface, and a fourth surface in an order from the object side in a direction in which the light fluxes travel.

32. (amended) An imaging device, comprising:

the reflective optical device according to ~~any one of claims 1, 11, 12, and 15~~, claim 1; and

a detecting means that converts a light intensity into an electric signal.

37. (amended) The multi-wavelength imaging device according to claim 35, wherein the reflective optical device is the reflective optical device according to ~~any one of claims 1, 11, 12, and 15~~, comprising two non-axisymmetric reflection surfaces for bringing light fluxes from an object into focus on an image surface, the two non-axisymmetric reflection surfaces being a first reflection surface and a second reflection surface, wherein:

the first and second reflection surfaces are disposed in this order in a direction in which the light fluxes travel, and are arranged eccentrically; and

each of the first and second reflection surfaces is concave in a cross-sectional shape taken along a plane containing a center of the image surface and vertices of the reflection surfaces.

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40. (amended) The multi-wavelength imaging device according to claim 39, wherein the reflective optical device is the reflective optical device ~~according to any one of claims 1, 11, 12, and 15.~~ comprising two non-axisymmetric reflection surfaces for bringing light fluxes from an object into focus on an image surface, the two non-axisymmetric reflection surfaces being a first reflection surface and a second reflection surface, wherein:

the first and second reflection surfaces are disposed in this order in a direction in which the light fluxes travel, and are arranged eccentrically; and

each of the first and second reflection surfaces is concave in a cross-sectional shape taken along a plane containing a center of the image surface and vertices of the reflection surfaces.

42. (amended) A vehicle-mounted monitor, comprising:

a multi-wavelength imaging device according to claim 35 ~~or 39~~; and

a display means that conveys an obtained image to a driver.

83. (amended) An imaging device, comprising the reflective optical device according to ~~any one of claims 43 to 76~~ claim 43, wherein an imaging element is provided at a portion of the reflective optical device where an image is formed.

85. (amended) An imaging device, comprising the reflective optical device according to ~~any one of claims 43 to 76~~ to claim 43, wherein an imaging element having sensitivity to a visible range is provided at a portion of the reflective optical device where an image is formed.

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86. (amended) An imaging device, comprising the reflective optical device according to ~~any one of claims 43 to 59~~ to claim 43, wherein an imaging element having sensitivity to a visible range and an infrared range is provided at a portion of the reflective optical device where an image is formed.

87. (amended) An imaging device, comprising the reflective optical device according to ~~any one of claims 67, 68, 74, and 75~~ to claim 67, wherein an imaging element having sensitivity to a visible range and an infrared range is provided at a portion of the reflective optical device where an image is formed.

88. (amended) An imaging device, comprising the reflective solid-state optical device according to ~~any one of claims 77 to 82~~ to claim 77, wherein an imaging element is provided at a portion of the reflective solid-state optical device where an image is formed.

90. (amended) An imaging device, comprising the reflective solid-state optical device according to claim 81 ~~or 82~~, wherein an imaging element having sensitivity to a visible range and an infrared range is provided at a portion of the reflective solid-state optical device where an image is formed.

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